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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/588,462	06/06/2000	John Philipsson	027557-049	9176

21839 7590 02/09/2005

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EXAMINER

HAROLD, JEFFEREY F

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/588,462

Applicant(s)

PHILIPSSON ET AL.

Examiner

Jefferey F Harold

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-10 and 12-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,10,12 and 16 is/are rejected.
- 7) ☒ Claim(s) 4-9 and 13-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Objections*

1. **Claims 8 and 9** are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Specifically the limitations of claim 8 are the same limitations found in the preamble of claim 1.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1, 7, 10 and 16** are rejected under 35 U.S.C. 102(b) as being anticipated by Okubo et al. (United States Patent 5,450,494), hereinafter referenced as Okubo.

Regarding **claim 1**, Okubo discloses an automatic volume controlling apparatus. In addition, Okuba discloses a loudspeaker volume range control arrangement for a telephone having a loudspeaker, a microphone, and an echo cancellation system including an adaptive filter arrangement, the arrangement comprising: means for controlling a volume range of the loudspeaker in dependence on an inherent estimated distance between the loudspeaker and the microphone, the distance being inherently estimated based on adaptive filter arrangement coefficients derived from signal of the

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loudspeaker and microphone. The distance estimation is inherently determined as evidenced by the fact that one of ordinary skill in the art would have recognized that the echo canceller correlates the signals between the microphone and speaker the determine the coefficients for the adaptive filter algorithm. Thus by correlating the two signals the distance is determined for the purpose of canceling the echo, as disclosed at column 5, line 19 through column 6, line 41 and exhibited in figure 5.

Regarding **claims 7, 10 and 16**, they are interpreted and thus rejected for the reasons set forth above in the rejection of claim 1.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. ***Claims 3 and 12*** are rejected under 35 U.S.C. 103(a) as being unpatentable over Okubo in view of well know prior art (MPEP 2144.03).

Regarding **claim 3**, Okubo discloses everything claimed as applied above, (see claim 1), in addition, Okubo discloses adaptive filter 113 and 114, however, Okubo fails to disclose a FIR filter. However, the examiner takes official notice of the fact that it was well know in the art to provide FIR filter.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Okubo by specifically providing a FIR filter, for the purpose of using only the current and past input samples to cancel the echo.

Regarding **claim 12**, it is interpreted and thus rejected for the reasons set forth above in the rejection of claim 3.

#### ***Allowable Subject Matter***

4. ***Claims 4-6 and 13-15*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Conclusion***

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F Harold whose telephone number is 703-306-5836. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

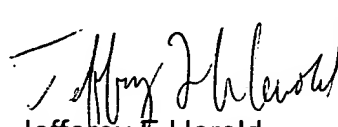
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh H Tran can be reached on 703-305-4040. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



JFH  
February 2, 2005



Jeffrey F Harold  
Examiner  
Art Unit 2644